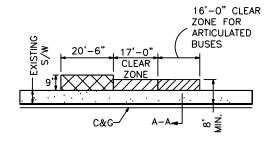
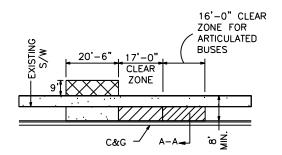


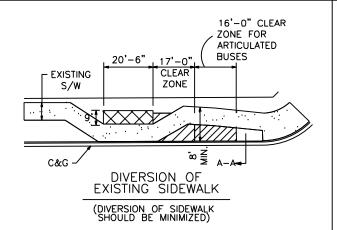
# ADJACENT TO MEANDERING SIDEWALK



# ADJACENT TO CURB SIDEWALK



ADJACENT TO PARKWAY SIDEWALK

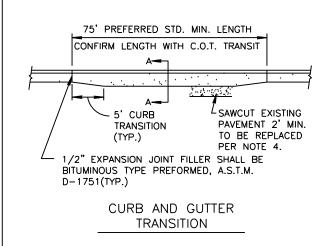


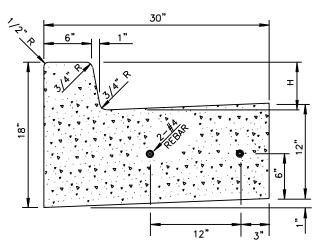
KEY:

...: EXISTING SIDEWALK

ACCESSIBLE CLEAR ZONE

BUS SHELTER PAD FOUNDATION





SECTION A-A
SPECIAL C&G ADJACENT
TO BUS STOP

### NOTES:

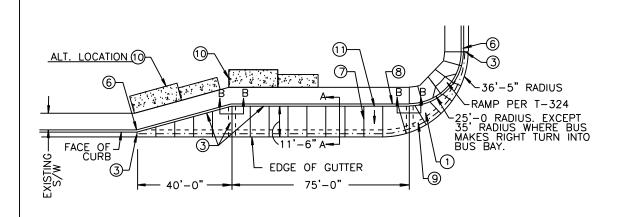
- 1. H=7" OR MATCH EXISTING CURB & GUTTER
- 2. CLASS "AA" CONCRETE
- 3. SAME NOTES AS MAG STD. DTL. NO. 220-1 TYPE A 4. PAVEMENT REPLACEMENT SHALL BE MIN. 3" THICK PER DETAIL T-312 OR T-313 ON 12" ABC ON MIN. 6" OF PREPARED SUBGRADE, OR MATCH EXISTING (WHICHEVER IS GREATER).
- 5. BUS STOP PAD LOCATIONS DEPICTED REPRESENT THOSE REQUIRED FOR TYPE "B" SHELTERS

DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

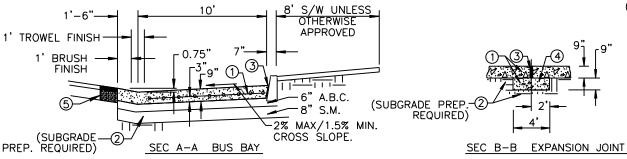
BUS SHELTER FOUNDATION LOCATION OPTIONS AND SPECIAL CURB & GUTTER N.T.S.

DETAIL T-654 1 OF 21 REVISED 2015



THROUGH TRAFFIC LANE

# ALT. LOCATION 10 6 7 8 9 11'-6" A 3 FACE OF CURB OF CUR



# **GENERAL NOTES:**

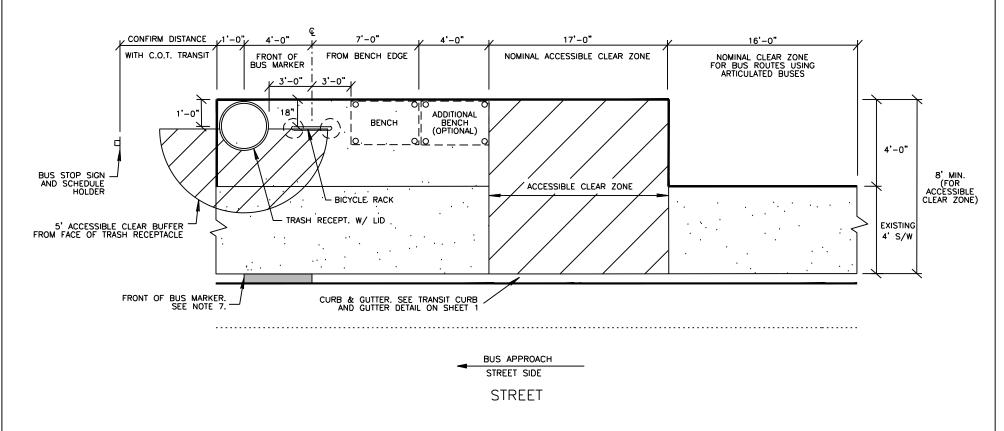
- 1. DRIVEWAYS SHOULD BE AVOIDED WITHIN THE BUS BAY. A DRIVEWAY SHOULD NOT BE PLACED WITHIN THE TRANSIT/ACCESSORY PAD AREA.
- 2. INCORPORATE REQUIRED SITE LANDSCAPING TO PROVIDE ADDITIONAL SHADE.

# **KEY NOTES:**

- (1) CONCRETE TO BE 9" IN DEPTH CLASS "A" PER MAG SPECS. WITH 6"X6" 10/10 WELDED WIRE REINFORCING. LOCATE WIRE 3" ABOVE BOTTOM OF SLAB, USE CONCRETE CHAIRS 18" O.C. ALL DIRECTIONS
- (2) 6" A.B.C. ON 8" SELECT MATERIAL 95% COMPACTION SUBGRADE PREPARATION REQUIRED TO MEET MAG AND CITY OF TEMPE SOILS REQUIREMENTS.
- 3 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
- (4) CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT. BOND BREAKER ACCEPTABLE.
- (5) 2' MIN. SAWCUT AND REMOVAL OF EXISTING PAVEMENT REPLACEMENT SHALL BE PER C.O.T. DETAIL T-311, T-312, T-313, T-315, T-316, OR T-317 ON 12" ABC ON MIN. 6" OF PREPARED SUBGRADE, OR MATCH EXISTING (WHICHEVER IS GREATER).
- 6 TRANSITION POINT FROM CURB M.S.D. NO. 220 TO 222, CURB WITH PAD.
- (7) 2-1/2" DEEP CONTRACTION JOINTS 10' O.C. MAX. SPACING. MATCH CURB JOINTS.
- (8) MAG STD. DTL. NO. 222, TYPE "B" (H=7") SINGLE CURB
- 9 MODIFIED VALLEY GUTTER (9" THICK) MONOLITHIC POUR WITH BUS BAY PAD OR VALLEY GUTTER PER MAG DET. NO. 240 AS DIRECTED BY FIELD ENGINEER.
- (1) TRANSIT SHELTER PER DETAILS. PAD DIMENSIONS PER PROJECT DRAWINGS. BUS STOP PADS DEPICTED REPRESENT THOSE REQUIRED FOR TYPE "B" SHELTERS.
- (1) ANY DEVIATION IN DIRECTION OF FLOW SHALL REQUIRE APPROVED DRAINAGE DETAIL.

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- 1. TRASH RECEPTACLE WITH LID CONFIRM MFG & MODEL NO. W/ C.O.T. TRANSIT DIVISION DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE SLAB.
  2. BENCH CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE
  3. BICYCLE RACK PER CITY OF TEMPE STD. DETAIL T-578
  4. BUS STOP SIGN PLACEMENT TO BE FIELD DETERMINED AND CONFIRMED W/ C.O.T. TRANSIT DIVISION. BUS STOP SIGN POLE TO BE 1-3/4" SQUARE, 1" O.C. PERFORATED, AND POWDER-COATED TERRA BROWN (RAL 8028)
  5. SCHEDULE HOLDER TIP RCH-22 SCHEDULE HOLDER WITH TWO MOUNTING HOLES DRILLED AND TAPPED TO ACCEPT 5/16-18 THREADED BOLT 6. ALL EXISTING LANDSCAPING AREAS BARRING THE ADA CLEAR ZONE PAVEMENT FROM THE BACK OF THE CURB MUST BE FILLED IN WITH
- CONCRETE SIDEWALK

  7. FRONT OF BUS MARKER 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION

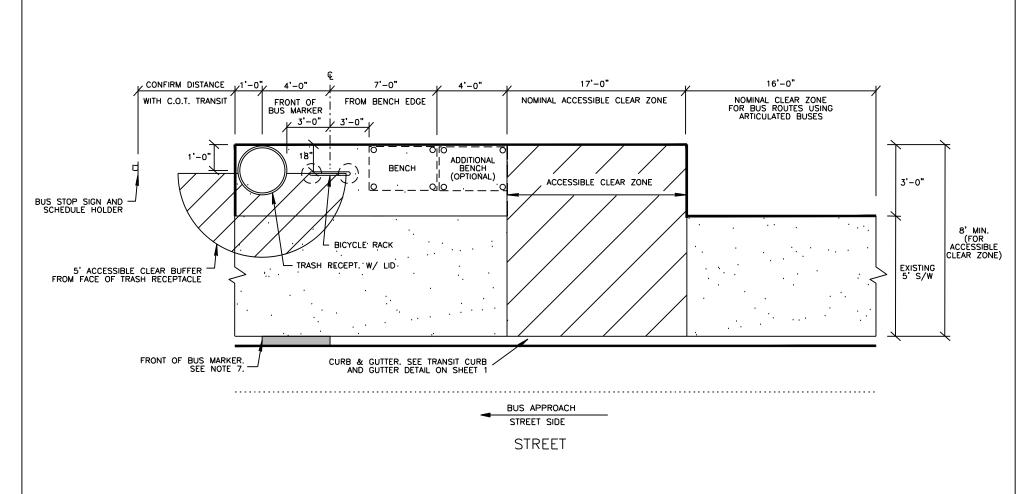
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



FURNITURE CONFIGURATION FOR BUS STOPS WITHOUT SHELTER, 4' EXISTING SIDEWALK N.T.S.

DETAIL T-654 3 OF 21 REVISED 2015



- 1. TRASH RECEPTACLE WITH LID CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE SLAB.
  2. BENCH CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE
  3. BICYCLE RACK PER CITY OF TEMPE STD. DETAIL T-578
  4. BUS STOP SIGN PLACEMENT TO BE FIELD DETERMINED AND CONFIRMED W/ C.O.T. TRANSIT DIVISION. BUS STOP SIGN POLE TO BE 1-3/4"
  SQUARE, 1" O.C. PERFORATED, AND POWDER-COATED TERRA BROWN (RAL 8028)
  5. SCHEDULE HOLDER TIP RCH-22 SCHEDULE HOLDER WITH TWO MOUNTING HOLES DRILLED AND TAPPED TO ACCEPT 5/16-18 THREADED BOLT
  6. ALL EXISTING LANDSCAPING AREAS BARRING THE ADA CLEAR ZONE PAVEMENT FROM THE BACK OF THE CURB MUST BE FILLED IN WITH CONCRETE
- 7. FRONT OF BUS MARKER 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION

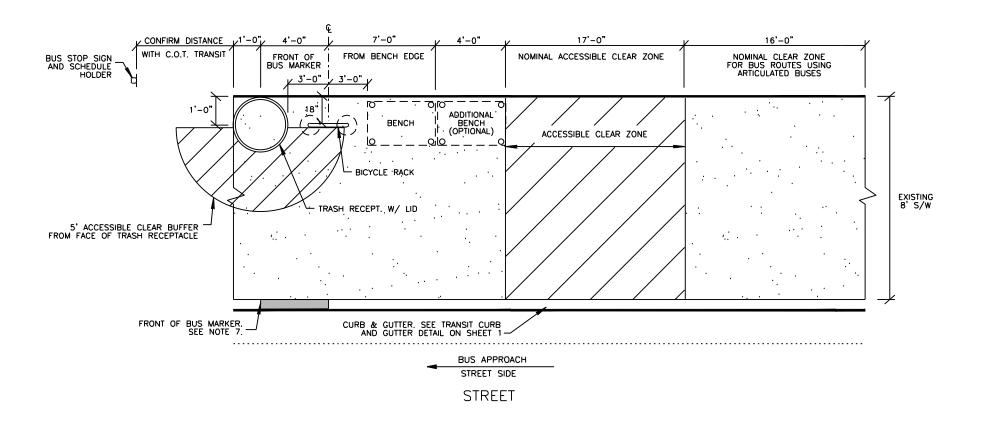
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



FURNITURE CONFIGURATION FOR BUS STOPS WITHOUT SHELTER, 5' EXISTING SIDEWALK N.T.S.

DETAIL T-654 4 OF 21 REVISED 2015



- 1. TRASH RECEPTACLE WITH LID CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE SLAB.
  2. BENCH CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE
  3. BICYCLE RACK PER CITY OF TEMPE STD. DETAIL T-578
  4. BUS STOP SIGN PLACEMENT TO BE FIELD DETERMINED AND CONFIRMED W/ C.O.T. TRANSIT DIVISION. BUS STOP SIGN POLE TO BE 1-3/4"
  SQUARE, 1" O.C. PERFORATED, AND POWDER-COATED TERRA BROWN (RAL 8028)
  5. SCHEDULE HOLDER TIP RCH-22 SCHEDULE HOLDER WITH TWO MOUNTING HOLES DRILLED AND TAPPED TO ACCEPT 5/16-18 THREADED BOLT
  6. ALL EXISTING LANDSCAPING AREAS BARRING THE ADA CLEAR ZONE PAVEMENT FROM THE BACK OF THE CURB MUST BE FILLED IN WITH CONCRETE
- 7. FRONT OF BUS MARKER 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION

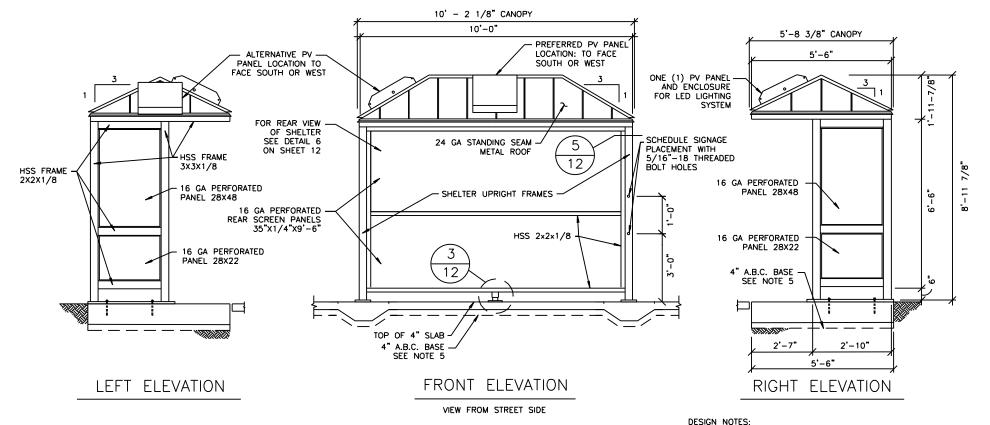
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



FURNITURE CONFIGURATION FOR BUS STOPS WITHOUT SHELTER, 8' EXISTING SIDEWALK N.T.S.

DETAIL T-654 5 OF 21 REVISED 2015



- 1. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR A TYPE "A" SHELTER BY APPROVAL OF CITY OF TEMPE TRANSIT DIVISION. HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE TYPE "A" SHELTER. SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.
- 2. URBAN SOLAR CORP., MODEL RMS-80 WITH TWO (2) LED STRIP LIGHT FIXTURES, OR TEMPE APPROVED EQUAL. SEE SHEET 21 OF 21 FOR BUS SHELTER POWER AND LIGHT DETAIL.
- 3. SITE-SPECIFIC STYLE OF FURNITURE MAY BE REQUIRED IN SOME AREAS, AND ON ART SHELTERS, CONTACT THE TRANSIT DIVISION STAFF FOR DETAILS.
- 4. CITY OF TEMPE TRANSIT BUS SHELTERS SHALL BE PROVIDED WITH A GROUNDING SYSTEM THAT MAY CONSIST OF THE FOLLOWING METHOD: 25 FEET OF #4 STRANDED COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUNDATIONS. THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH BETWEEN 2 AND 3 FEET. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE BOLT THROUGH THE FLAT WASHER AND SECURED IN THE TAPPED HOLE. GROUNDING METHOD WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
- 5. INSTALL 4" AGGREGATE BASE PER MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS SECTION 310, UNLESS ALTERNATIVE APPROVED DESIGN IS PROVIDED BY A SOILS REPORT.
- 6. ALL EXPANSION JOINTS SHALL BE INSTALLED PER MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS SECTION 340.

GOVERNING CODE 2010 IBC 1500 PSF SOIL BEARING CONCRETE (ALL)

f'c28 = 2500 PSI

METALS

ROLLED SHAPES AND PLATES ASTM A36 ASTM A53, GR.B PIPES ASTM A500, GR.C STRUCTURAL TUBING 10 GAGE BENT PLATE ASTM A1011, GR.50 BOLTS ASTM A307 ANCHOR BOLTS ASTM F1554, GR.36

CONSTRUCTION TYPE II-B OCCUPANCY

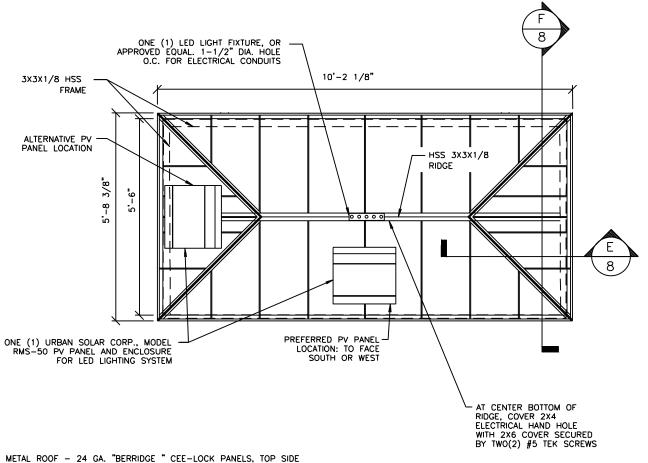
> DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



BUS STOP PASSENGER SHELTER TYPE "A" - ELEVATIONS

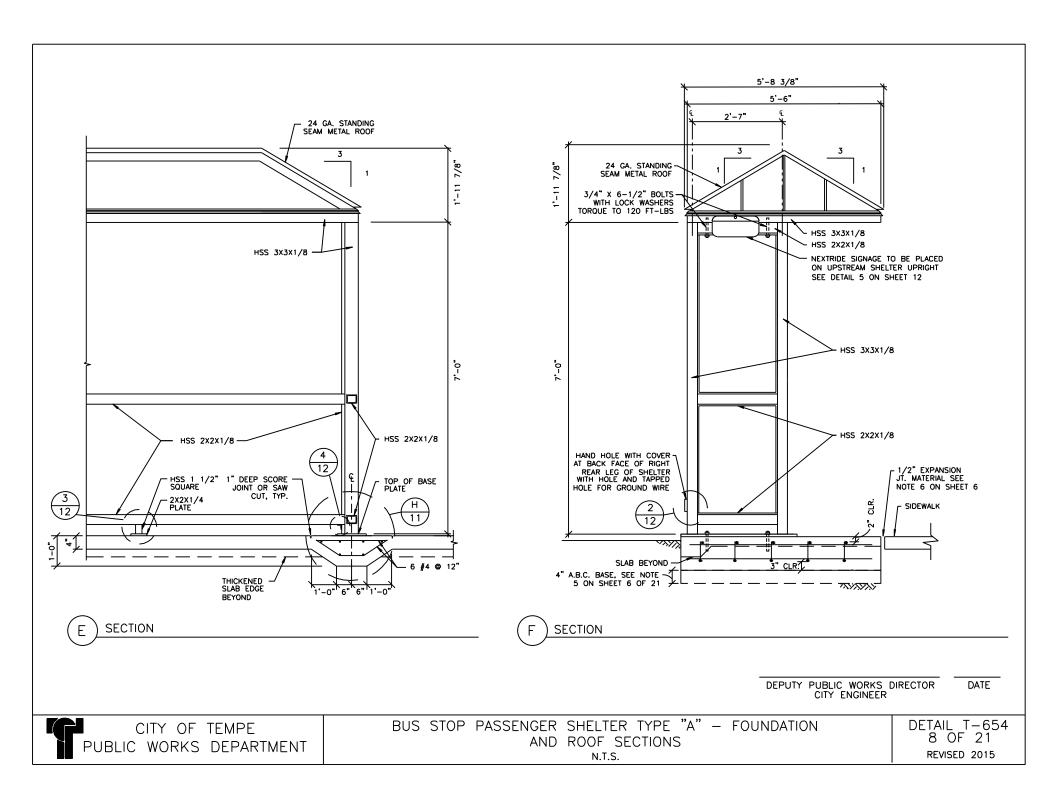
DETAIL T-654 6 OF 21 REVISED 2015

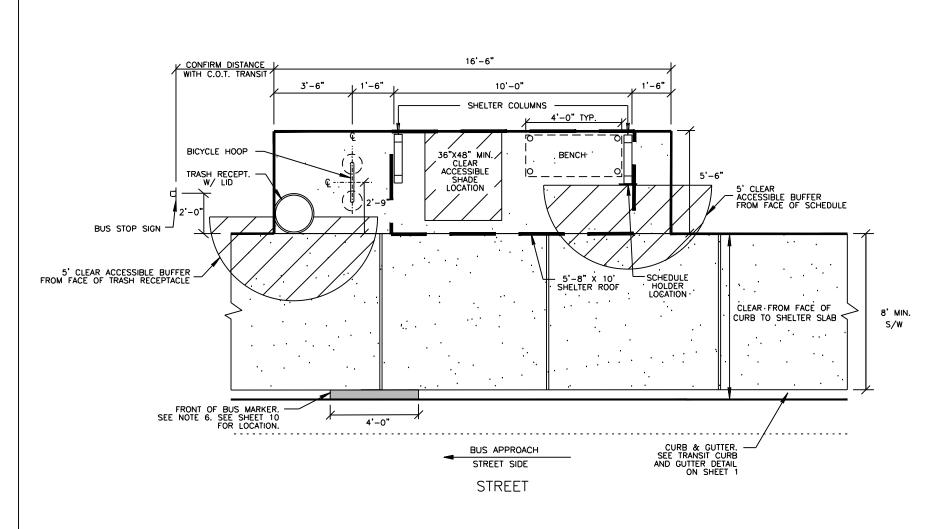


1. STANDING SEAM METAL ROOF - 24 GA. "BERRIDGE " CEE-LOCK PANELS, TOP SIDE COLOR TO BE "COPPER-COTE", UNDERSIDE COLOR TO BE FACTORY "WHITE".

DEPUTY PUBLIC WORKS DIRECTOR
CITY ENGINEER







- 1. ALL HSS FRAMES & INFILL PANELS TO BE PAINTED SHERWIN WILLIAMS COLOR: TEMPE BRONZE: #B65-T-184
  2. TRASH RECEPTACLE WITH LID CONFIRM MFG & MODEL NO. W/ C.O.T. TRANSIT DIVISION DRILLED CONCRETE EXPANSION ANCHOR

- 2. TRASH RECEPIACLE WITH LID CONFIRM MFG & MODEL NO. W/ C.O.T. TRANSIT DIVISION DRILLED CONCRETE SLAB

  3. BENCH CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE

  4. BICYCLE HOOP PER CITY OF TEMPE STD. DETAIL T-578

  5. SCHEDULE HOLDER TIP RCH-22 SCHEDULE HOLDER WITH TWO MOUNTING HOLES DRILLED AND TAPPED TO ACCEPT 5/16-18 THREADED BOLT

  6. FRONT OF BUS MARKER 4\* LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION.

  7. BUS STOP SIGN PLACEMENT TO BE FIELD DETERMINED AND CONFIRMED W/ C.O.T. TRANSIT DIVISION. BUS STOP SIGN POLE TO BE 1-3/4"

  SQUARE, 1" O.C. PERFORATED, AND POWDER-COATED TERRA BROWN (RAL 8028)

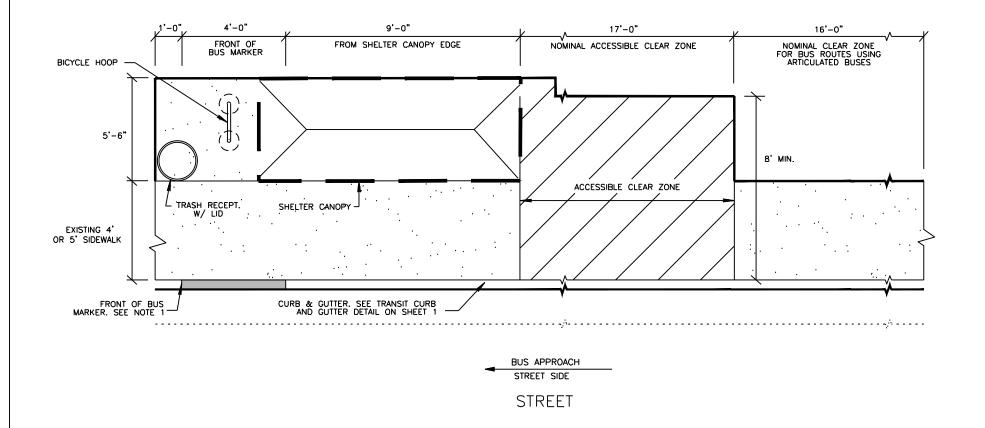
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT

BUS STOP PASSENGER SHELTER TYPE "A" - FURNITURE CONFIGURATION

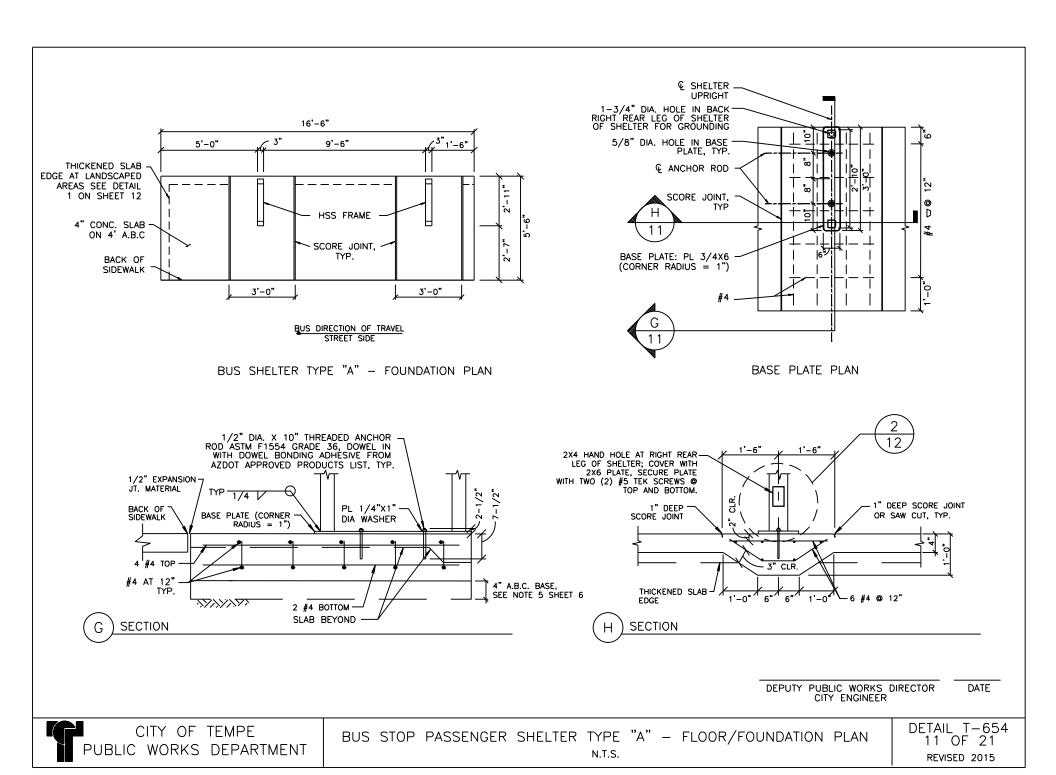
DETAIL T-654 9 OF 21 REVISED 2015

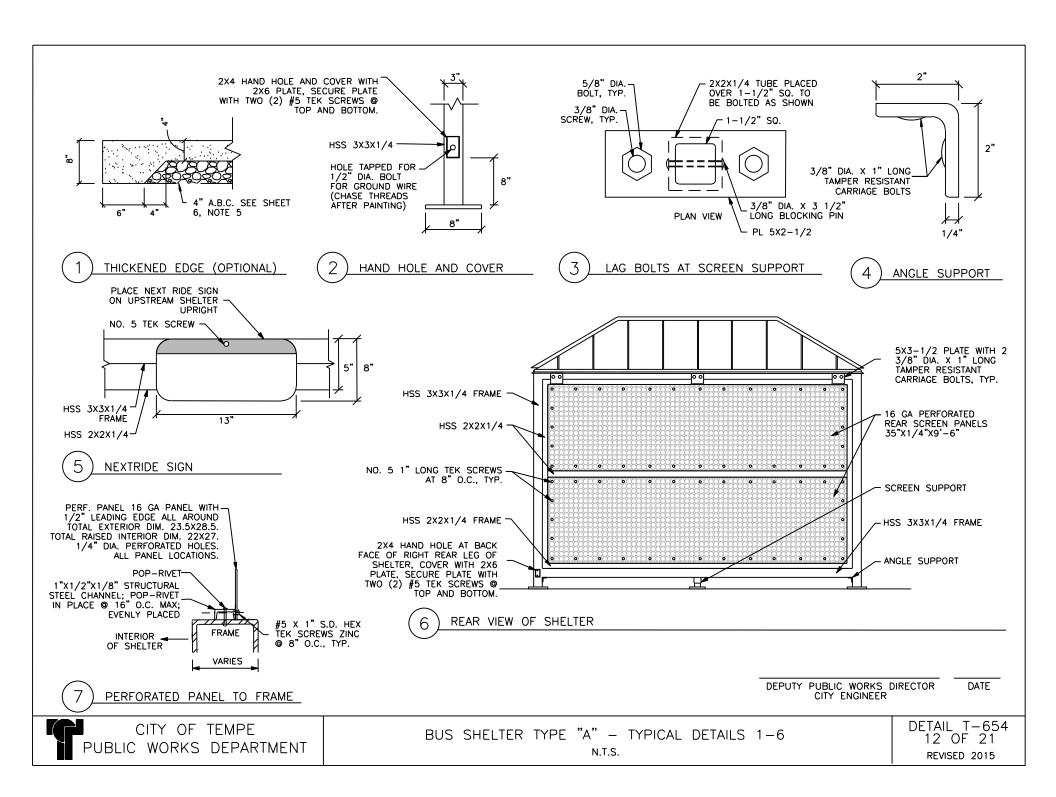


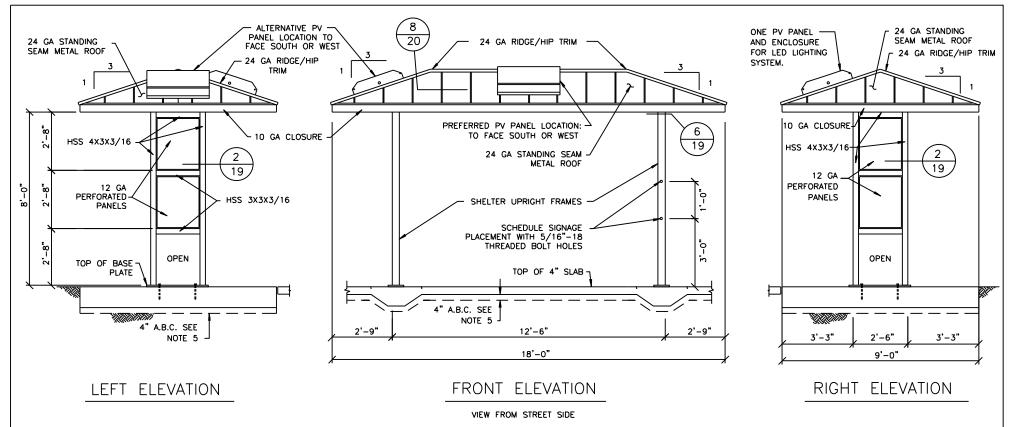
1. FRONT OF BUS MARKER - 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION.

DEPUTY PUBLIC WORKS DIRECTOR DATE CITY ENGINEER









1. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR A TYPE "B" SHELTER BY APPROVAL OF CITY OF TEMPE TRANSIT DIVISION. HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE TYPE "B" SHELTER. SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.

- 2. URBAN SOLAR CORP., MODEL RMS-80 WITH TWO (2) LED STRIP LIGHT FIXTURES, OR TEMPE APPROVED EQUAL. SEE SHEET 21 OF 21 FOR BUS SHELTER POWER AND LIGHT DETAIL.
- 3. SITE-SPECIFIC STYLE OF FURNITURE MAY BE REQUIRED IN SOME AREAS, AND ON ART SHELTERS. CONTACT THE TRANSIT DIVISION STAFF FOR DETAILS.
- 4. CITY OF TEMPE TRANSIT BUS SHELTERS SHALL BE PROVIDED WITH A GROUNDING SYSTEM THAT MAY CONSIST OF THE FOLLOWING METHOD: 25 FEET OF #4 STRANDED COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUNDATIONS. THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH BETWEEN 2 AND 3 FEET. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE BOLT THROUGH THE FLAT WASHER AND SECURED IN THE TAPPED HOLE. GROUNDING METHOD WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
- 5. INSTALL 4" AGGREGATE BASE PER MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS SECTION 310, UNLESS ALTERNATIVE APPROVED DESIGN IS PROVIDED BY A SOILS REPORT.
- 6. ALL EXPANSION JOINTS SHALL BE INSTALLED PER MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS SECTION 340.

**DESIGN NOTES:** 

GOVERNING CODE 2010 IBC SOIL BEARING 1500 PSF

CONCRETE (ALL) f'c28 = 2500 PSI

METALS

ROLLED SHAPES AND PLATES ASTM A36 PIPES ASTM A53, GR.B STRUCTURAL TUBING ASTM A500, GR.C 10 GAGE BENT PLATE ASTM A1011, GR.50 BOLTS ASTM A307 ANCHOR BOLTS ASTM F1554, GR.36

CONSTRUCTION TYPE II-B OCCUPANCY

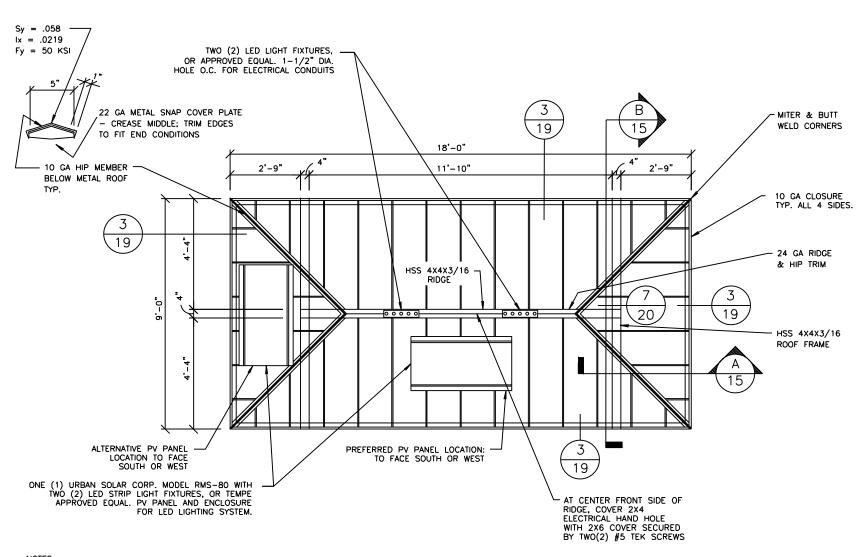
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



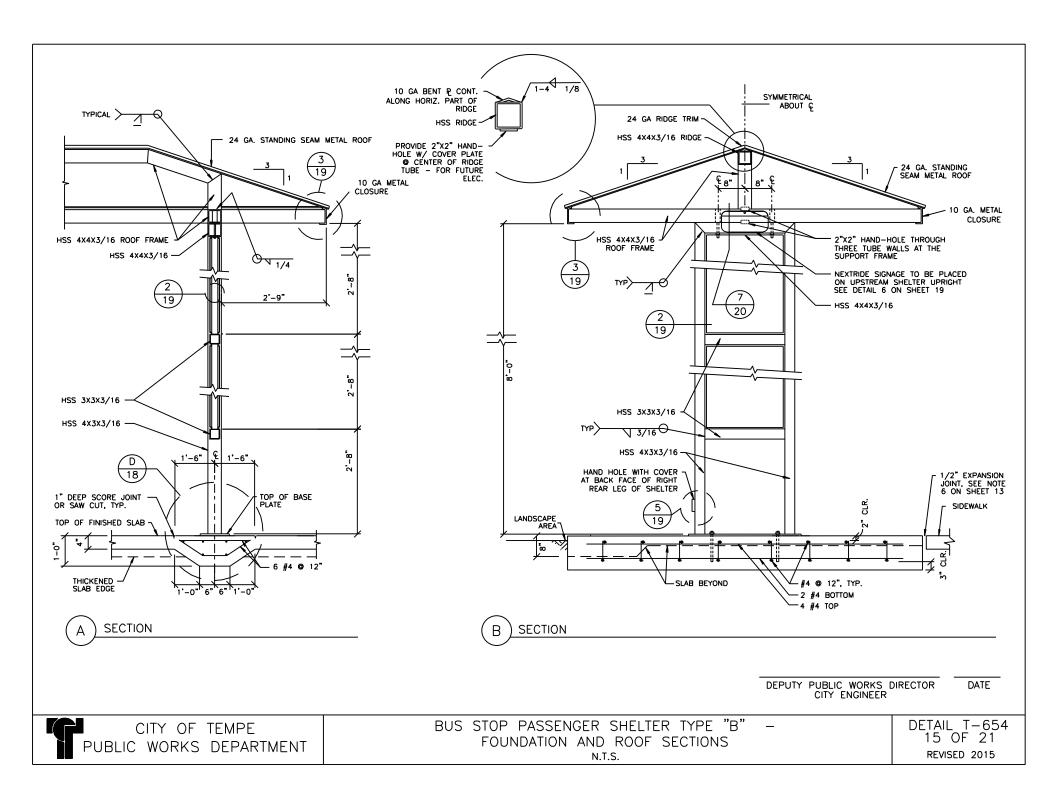
BUS STOP PASSENGER SHELTER TYPE "B" - ELEVATIONS N.T.S.

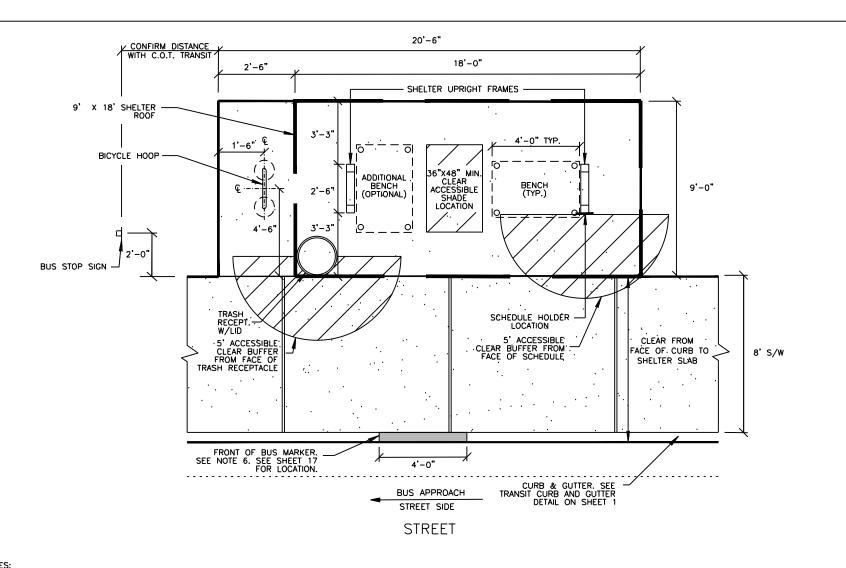
DETAIL T-654 13 OF 21 REVISED 2015



1. STANDING SEAM METAL ROOF - 24 GA. "BERRIDGE" CEE-LOCK PANELS, TOP SIDE COLOR TO BE TO BE "COPPER-COTE", UNDERSIDE COLOR TO BE FACTORY "WHITE".

DEPUTY PUBLIC WORKS DIRECTOR
CITY ENGINEER

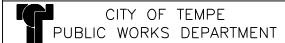




- 1. ALL HSS FRAMES & INFILL PANELS TO BE PAINTED SHERWIN WILLIAMS COLOR: TEMPE BRONZE: #B65-T-184
  2. TRASH RECEPTACLE WITH LID CONFIRM MFG & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE SLAB. LOCATE INSIDE CANOPY DRIPLINE
  3. BENCH CONFIRM MFG. & MODEL NO. W/ C.O.T. TRANSIT DIVISION. DRILLED CONCRETE EXPANSION ANCHOR BOLT TO CONCRETE
  4. BICYCLE HOOP PER CITY OF TEMPE STD. DETAIL T-578
  5. SCHEDULE HOLDER TIP RCH-22 SCHEDULE HOLDER WITH TWO MOUNTING HOLES DRILLED AND TAPPED TO ACCEPT 5/16-18 THREADED BOLT FRONT OF BUS MARKER 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION.
  7. BUS STOP SIGN PLACEMENT TO BE FIELD DETERMINED AND CONFIRMED W/ C.OT. TRANSIT DIVISION. BUS STOP SIGN POLE TO BE 1-3/4"
  SQUARRE PERFORATED AND POWDER—COATED TERRA RROWN (Ray 18028)
- SQUARE, PERFORATED, AND POWDER-COATED TERRA BROWN (RAL 8028)

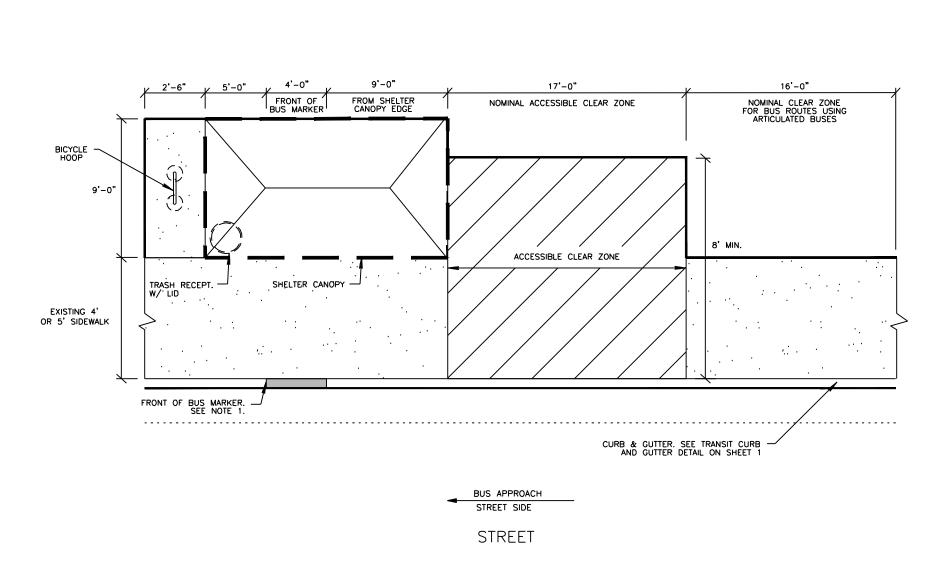
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE



BUS STOP SHELTER TYPE "B" - FURNITURE CONFIGURATION N.T.S.

DETAIL T-654 16 OF 21 REVISED 2015

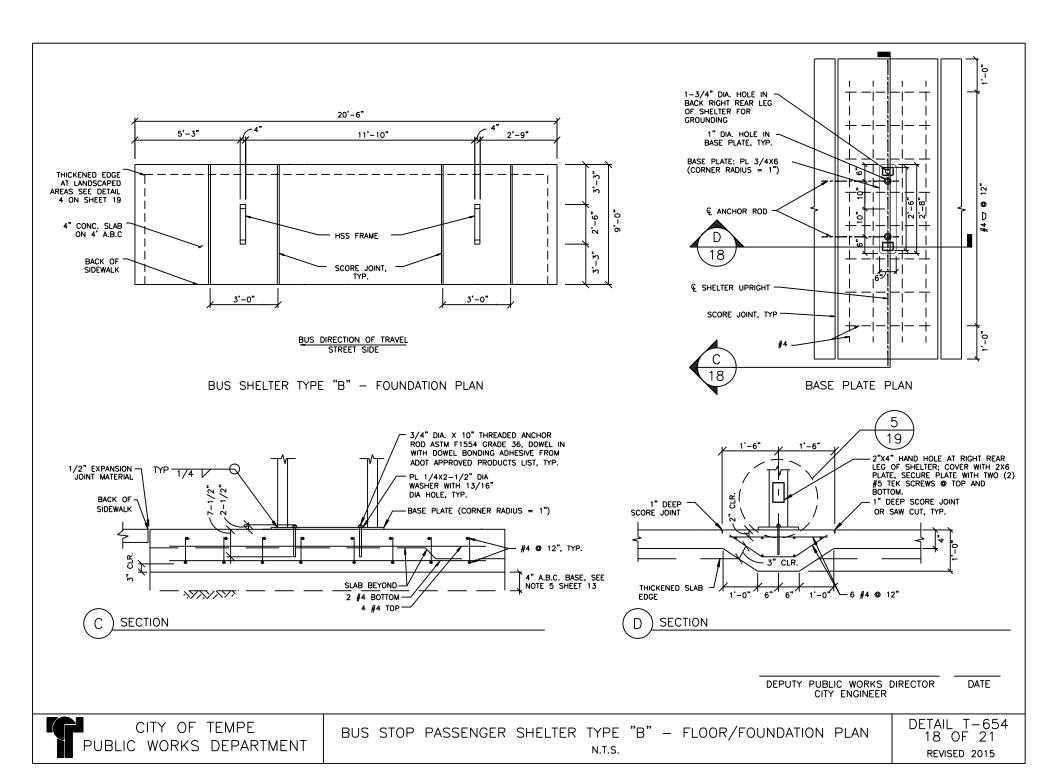


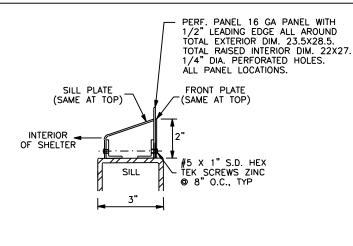
1. FRONT OF BUS MARKER - 4' LONG YELLOW 3M SERIES 380ES PAVEMENT MARKING PLACED ALONG TOP OF CURB. BY C.O.T. TRANSIT DIVISION.

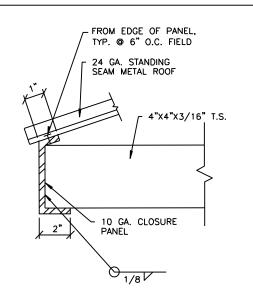
DEPUTY PUBLIC WORKS DIRECTOR DATE CITY ENGINEER

CITY OF TEMPE PUBLIC WORKS DEPARTMENT BUS STOP PASSENGER SHELTER TYPE "B" - SITE LAYOUT WITH < 8' WIDE SIDEWALK N.T.S.

DETAIL T-654 17 OF 21 REVISED 2015



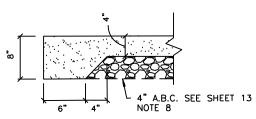




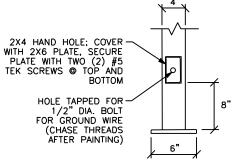
( 1 <u>) not used</u>

(2) PERFORATED PANEL TO FRAME

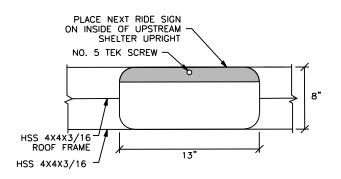
(3) TYPICAL CLOSURE



(4) THICKENED EDGE (OPTIONAL)



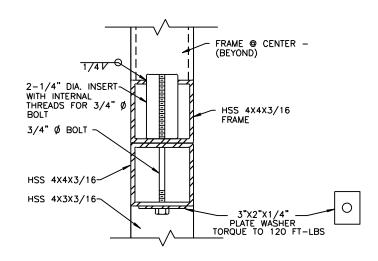
(5) HAND HOLE AND COVER



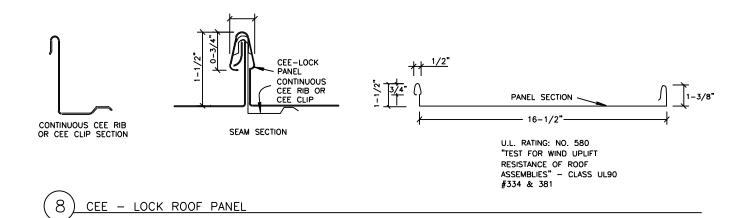
6 NEXTRIDE SIGN

DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER





(7) CONNECTION @ ROOF STRUCTURE



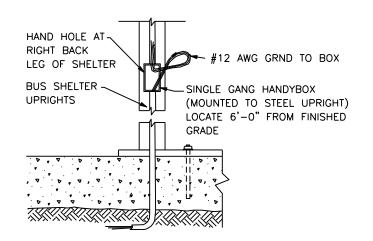
DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE

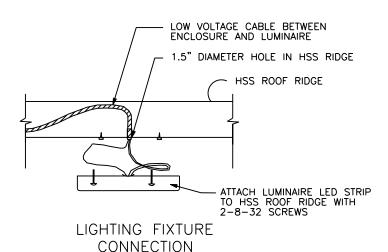
CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

BUS STOP PASSENGER SHELTER TYPE "B" - TYPICAL DETAILS 7 & 8 N.T.S.

DETAIL T-654 20 OF 21 REVISED 2015



GROUNDING



12 VDC

26"

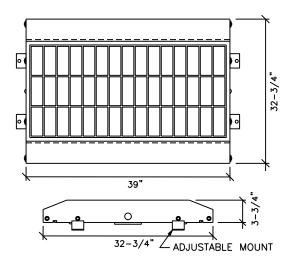
26"

ADJUSTABLE MOUNT

NOTE: HINGES ORIENTED TOWARDS RIDGE LINE

ROOF MOUNTED 50 WATT PV SYSTEM AND ENCLOSURE

FOR BUS SHELTER TYPE "A"



NOTE: HINGES ORIENTED TOWARDS RIDGE LINE

ROOF MOUNTED 80 WATT PV SYSTEM AND ENCLOSURE

FOR BUS SHELTER TYPE "B"

NOTES:

1. ALL GROUNDING WILL BE INSTALLED IN COMPLIANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

DEPUTY PUBLIC WORKS DIRECTOR CITY ENGINEER

DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

BUS SHELTER TYPES "A" AND "B" LIGHTING DETAILS N.T.S.

DETAIL T-654 21 OF 21 REVISED 2015